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Wireless Emergency Alert Messages

Federal Communications Commission, Public Notice, PS Docket Nos. 15-91 and 15-94

This is in reply to the Public Safety and Homeland Security Bureau of the Federal Communications Commission (FCC), Public Notice, PS Docket Nos. 15-91 and 15-94, regarding the feasibility of including multimedia content in Wireless Emergency Alert (WEA) messages.

This is background information and recommendations regarding to Emergency Notification and Information Systems to accommodate individuals who are deaf, deafblind, and hard of hearing in four areas: 1) Wireless Emergency Alert (WEA)/Short Message Services (SMS); 2) Local Self-Registry Notification Service; 3) Notice to Telecommunications Relay Service (TRS) Users; and, 4) Designated Accessible Information Site.

First, I would like to provide some information about my professional background experience and my involvement as a member of several local, state and national organizations. I have been employed by the City of Los Angeles Department on Disability as ADA Technology Access Coordinator for over 29 years. In these capacities, I have advised the city, including its law enforcement agencies, on accommodations in compliance with applicable disability law; provided technological and technical assistance to city departments to improve access to and communication with the deaf and hard-of-hearing; and coordinated access to city facilities, programs, services and activities for deaf and hard-of-hearing individuals through emerging technologies.

In addition to my job responsibilities, I am the current co-chair of the National Emergency Number Association Accessibility Committee and Federal Communications Commission's Emergency Communication Subcommittee. I am currently a member of the FCC's Disability Advisory Committee and the California Commission on Disability Access Education and Outreach Committee. In the past, I have served as a co-chair of the FCC's Emergency Access Advisory Committee, and FCC's Task Force on Optimal Public Safety Answering Points Architecture. I have also served as a member of the National Advisory Board of Preparedness and Emergency Response Research Center, the University of Berkeley and California Public Utilities Commission Equipment Program Advisory Committee, Deaf and Disabled Telecommunications Programs Administrative Committee, TDD Placement Interim Committees, and the Los Angeles County Metropolitan Transportation Authority's Service Authority for Freeway Emergency Hearing and Speech Impaired Task Force.

Technological changes in the industry and expansion of telecommunications now provide people many communication options. Individuals who are deaf, deafblind, hard-of-hearing, and individuals with a speech disability are also following these trends and are rapidly migrating to more advanced telecommunications methods, both for peer-to-peer and third-party TRS communications. Internet-based equipment includes, but is not limited to, wireless devices, videophones, videocams, computers, and tablets.

Due to these technological changes, this is a request to improve access for individuals with disabilities, specifically for individuals who are deaf, deafblind, and hard of hearing through the use of emergency notification such as WEA, SMS, or an equally effective emergency notification system in geo-targeted area via cell broadcast technology.

Several issues have been identified and recommendations considered to support innovative approaches that can increase accessibilities to protect the life and property of citizens in their local area.

Local Emergency Notification

A few state and local government agencies, if they choose to “opt-in”, are offering emergency notification services to residents who “sign up” to receive emergency warning and/or information. To receive notification, individuals must register or sign up with local self-registry notification service or emergency alert system through their local Emergency Management Agencies.

To illustrate long-standing issues, here are few of many examples that individuals who are deaf, deafblind, and hard of hearing have encountered when facing disasters.

On July 13, 2013 at 2:31 pm, a fuel tanker crashed and exploded into flames a mile from my home in Silver Lake, CA. I received a voice message on my smart phone instead of text messaging. I am deaf and rely heavily on text messaging as my primary mode of communication.

Four hours after receiving that voice message, I asked my friend to listen to that voice message that was sent from the local emergency management agency, advising people to call 9-1-1 if they smelled gas. That was when I learned about that accident. The following day, I received another voice message stating, “The gasoline tank fire at Stadium Way has now been resolved. No further action necessary from the public. Thank you.”

Several years ago, I signed up to receive emergency alert with the Alert LA. I expected to receive text messaging. Unfortunately, I did not receive any text messaging which would have helped me to notify my three tenants ahead of time. I learned that tenants who can hear were not aware and were not notified even though they were at home, less than one mile from the accident site.

On October 9, 2017, two destructive fires consumed more than 52,000 acres in Napa and Sonoma Counties, California. Approximately five hundred individuals who are deaf did not receive notification until much later after their neighbors were alerted. Many struggled to comprehend what exactly was happening until they encountered hearing people and exchanged notes.

On October 17, 2017, an explosion and fire rocked the Chevron Refinery in El Segundo, California. It was reported that helicopters hovered over the area and announced over loudspeaker instructing residents to evacuate the area. Naturally, people who are deaf and hard of hearing were not aware of the announcement.

On December 6, 2017, the Skirball Fire flared in Bel-Air hillside near Skirball Cultural Center and the Getty Center off the freeway 405, in California. That morning I drove to the Los Angeles International Airport on that freeway for an off-site hearing. I was not aware of the fire until my friend sent me a text message to inform me of the fire. Residents within the affected area were under mandatory evacuations.

It is crucial that everyone, including individuals who are deaf, deafblind, and hard of hearing, receive messages at the same time. In order to meet their needs, technical development is necessary to create a system that provides equal communication access to receive proper notifications.

Recommendation

Specifically, this is request to explore the implementation of local WEA, SMS or equally effective emergency notification systems with the wireless carriers as well as support to appropriate entities to save people lives and protect their property as a supplemental to existing local self-registry notification service for non-life emergency notification such as traffic accidents.

This method of disseminating of notice via WEA, SMS, or an equally effective emergency notification system will also benefit individuals who may be traveling through an affected area. Currently, travelers may not receive such notification should disaster occur; as they may not have registered with the emergency management agency in advance before traveling.

Local Self-Registry Notification Service

There are widespread concerns about safety due to natural and man-made disasters nationwide. Access to emergency warning and information is especially important for people that are deaf, deafblind and hard of hearing, who are often left out of the emergency alerting process.

To illustrate this issue, here is one of many examples that individuals who are deaf, deafblind, and hard of hearing have encountered when facing disasters.

People who are deaf, deafblind, and hard of hearing register using their 10-digit numbers delegated to them from their preferred relay service providers. However, it is problematic for individuals who rely on relay services, as several technical challenges may prevent the reception of the alert.

When the notification system automatically sends out computerized voice messages to subscribers in mass volume, these calls reach the designated relay service provider. Often, these calls are placed in a holding queue, waiting for the next available Video Interpreter or Communication Assistant to become available. During this delay, a recorded audio message is often played to alert hearing callers of the delay, announcing to the caller "Please hold for the next available agent".

Many automated notification systems do not recognize this automated voice announcement; causing it to disconnect and redial. The notification system may also misinterpret the recorded announcement as human voice, and then deliver the

automated message. When this occurs, should the Video Interpreter or Communication Assistant answer the call, it is most likely that he/she may not capture the full information before connecting with a telecommunication relay user. Often, the notification system will then disconnect assuming the message has been delivered, when in fact it has not.

Recommendation

As an interim solution, it is recommended that a notice be posted on the online local self-registry notification service registration form advising individuals relying on Telecommunication Relay Services (TRS) to sign up to receive text messages using a smartphone or mobile device by providing a mobile number. Telecommunication Relay Services (TRS) includes but is not limited to Text-to-Voice TTY-based TRS, Speech-to-Speech Relay Service, Shared Non-English Language Relay Services, Captioned Telephone Service; IP Captioned Telephone Service, Internet Protocol Relay Service, or Video Relay Service.

Proposed Language for Sign Up Alerts Page

Individuals relying on Telecommunication Relay Services (TRS) such as Text-to-Voice TTY-based TRS, Speech-to-Speech Relay Service, Shared Non-English Language Relay Services, Captioned Telephone Service; IP Captioned Telephone Service, Internet Protocol Relay Service, or Video Relay Service as well as Teletypewriter for the Deaf (TTY) are encouraged to sign up to receive text messages using a smartphone or mobile device by providing a mobile number.

Designated Accessible Information Site

Ensuring access to emergency warning and information is also important for individuals with intellectual and cognitive disabilities and other disabilities. These people are often left out of the emergency alerting process due to warnings in inaccessible formats via wireless handheld devices.

Access to information for users with cognitive disabilities can be a far greater challenge than for individuals with other types of disabilities. They are the least understood of the disability categories. Most people with cognitive disabilities experience limited comprehension and may not be able to understand complex information presented to them. Some people with cognitive disabilities easily become frustrated or upset when they sense difficult situations or when there is too much information presenting at the same time. They may not be able to move from abstract to concrete thinking without effort, especially in time of crisis.

Recommendation

It is recommended for the creation of a unique webpage exclusively for an accessible message that provides a URL address dedicated for dissemination via WEA, SMS, or an equally effective emergency notification system via broadcast Cell Tower. Once a notice with URL address is received, it will allow readers to select a link which will direct them to a designated webpage stored in Cloud server pertaining to a specific

incident for additional information in accessible formats for easy viewing to avoid information overload.

That unique webpage can include an informational video in American Sign Language with captions and audio descriptions. In addition, other accessible messages can be posted along with resources pertaining to shelters.

During an emergency, it is important to make visual information available to individuals using "canned" videos, live certified deaf interpreter, or video remote interpreting services and closed captions for various situations to alert individuals who are deaf and hard of hearing.

This effort can be accomplished through the collaboration with the United States Department of Justice to urge state and local government emergency management agency to adopt aforementioned recommendations.

I look forward to working with the FCC to discuss logistics for the betterment of our communities as well as individuals with and without disabilities.

Respectfully submitted,

Richard Lorenzo Ray